

### REMARKS

Claims 1-26 are currently pending in this application. Claim 16 has been withdrawn from consideration. Claim 1 has been amended. Applicant respectfully requests reconsideration of the pending claims in view of the following remarks.

#### Claim Rejections 35 U.S.C. § 102

The Examiner rejected Claims 1-4, 15, 18, and 21-25 as being anticipated by U.S. Patent No. 4,712,160 ("Sato").

Sato does not disclose the subject matter of amended independent Claim 1. More specifically, Sato does not disclose a power supply circuit comprising at least the following elements:

- (a) a primary side circuit including a circuit carrier oriented in a first plane, the primary side circuit electrically connected to the transformer;
- (b) a secondary side circuit including a circuit carrier oriented in a second plane substantially perpendicular to the first plane, the secondary side circuit electrically connected to the transformer and the primary side circuit.

Rather, Sato discloses a power module illustrated in Figs. 1A and 1B. The power module includes a primary circuit board 1 and a secondary circuit board 2 arranged on opposite sides of a transformer 3. The primary circuit board 1, the secondary circuit board 2, and the transformer 3 are joined by an electrical insulation material or resin 4. As clearly illustrated in Figs. 1A and 1B, the primary circuit board 1 and the secondary circuit board 2 are arranged in a parallel configuration. Further, because the primary circuit board 1 and the secondary circuit board 2 are located on opposite sides of the transformer 3, it is clear that the boards 1 and 2 are arranged parallel to one another. The secondary circuit board 2 is not arranged in a plane substantially perpendicular to a plane of the primary circuit board 1.

The Examiner has indicated that the primary side circuit as claimed is denoted by numeral 1 of Sato and that the secondary side circuit as claimed is denoted by numeral 2 of Sato. However, this is incorrect. As noted in Sato at column 2, lines 33-34, numeral 1 represents a "primary circuit board" and numeral 2 represents a "secondary circuit board." The Examiner then goes on to indicate that the circuit carriers as claimed are represented by the insulation material 4 of Sato.

As claimed in Claim 1, the circuit carrier of the primary side circuit (Sato: primary circuit board 1) must be oriented in a plane substantially perpendicular to the circuit carrier of the secondary side circuit (Sato: secondary circuit board 1). Clearly, the primary circuit board 1 of

Sato and the second circuit board 2 of Sato are not arranged in planes perpendicular to one another.

For at least these reasons, Sato does not disclose the subject matter of Claim 1. Accordingly, independent Claim 1 is allowable. Claims 5-24 depend from Claim 1, and are allowable for at least the reasons Claim 1 is allowable.

Sato does not disclose the subject matter of independent Claim 3. Sato does not disclose a power supply circuit comprising at least one transformer which is connected to a primary side circuit and to a secondary side circuit, wherein the primary side circuit and the secondary side circuit are each mounted on at least one separate circuit carrier, said circuit carriers being mechanically and electrically coupled with one another and arranged in at least two different planes, wherein the primary side circuit is mounted on a plurality of primary side circuit carriers, the planes of which are substantially in parallel with one another.

Rather, Sato discloses a power module illustrated in Figs. 1A and 1B. The power module includes a primary circuit board 1 and a secondary circuit board 2 arranged on opposite sides of a transformer 3. The primary circuit board 1, the secondary circuit board 2, and the transformer 3 are joined by an electrical insulation material or resin 4.

The component 5 of the primary circuit board 1 is arranged on a single circuit carrier. Accordingly, independent Claim 3 is allowable.

Sato does not disclose the subject matter of independent Claim 25. More specifically, Sato does not disclose a method for producing a power supply circuit comprising at least one transformer, a primary side circuit and a secondary side circuit, said method comprising at least the following steps:

(a) electrically and mechanically coupling the circuit carriers with the transformer, the circuit carriers being arranged in at least two different planes, wherein the plane which is defined by the at least one secondary side circuit carrier extends in a direction substantially transverse to the plane defined by the at least one primary side circuit carrier, and wherein the at least one primary side circuit carrier is separated by an electrically insulating layer from the at least one secondary side circuit carrier.

As noted above, Sato discloses a power module illustrated in Figs. 1A and 1B. The power module includes a primary circuit board 1 and a secondary circuit board 2 arranged on opposite sides of a transformer 3. The primary circuit board 1, the secondary circuit board 2, and the transformer 3 are joined by an electrical insulation material or resin 4. As clearly

illustrated in Figs. 1A and 1B, the primary circuit board 1 and the secondary circuit board 2 are arranged in a parallel configuration. Further, because the primary circuit board 1 and the secondary circuit board 2 are located on opposite sides of the transformer 3, it is clear that the boards 1 and 2 are arranged parallel to one another. The secondary circuit board 2 is not arranged in a plane transverse to a plane of the primary circuit board 1.

The Examiner has indicated that the primary side circuit as claimed is denoted by numeral 1 of Sato and that the secondary side circuit as claimed is denoted by numeral 2 of Sato. However, this is incorrect. As noted in Sato at column 2, lines 33-34, numeral 1 represents a "primary circuit board" and numeral 2 represents a "secondary circuit board." The Examiner then goes on to indicate that the circuit carriers as claimed are represented by the insulation material 4 of Sato.

As claimed in Claim 1, the circuit carrier of the primary side circuit (Sato: primary circuit board 1) must be oriented in a plane substantially perpendicular to the circuit carrier of the secondary side circuit (Sato: secondary circuit board 1). Clearly, the primary circuit board 1 of Sato and the second circuit board 2 of Sato are not arranged in planes transverse to one another.

Accordingly, independent Claim 25 is allowable.

Sato does not disclose the subject matter of independent Claim 26. More specifically, Sato does not disclose a method for producing a power supply circuit comprising at least one transformer, a primary side circuit and a secondary side circuit, said method comprising the at least following steps:

- (a) electrically and mechanically coupling the circuit carriers with the transformer, the circuit carriers being arranged in at least two different planes,
- (b) wherein the primary side circuit is mounted on a plurality of primary side circuit carriers, the planes of which are substantially in parallel with one another.

Rather, Sato discloses a power module illustrated in Figs. 1A and 1B. The power module includes a primary circuit board 1 and a secondary circuit board 2 arranged on opposite sides of a transformer 3. The primary circuit board 1, the secondary circuit board 2, and the transformer 3 are joined by an electrical insulation material or resin 4.

The component 5 of the primary circuit board 1 is arranged on a single circuit carrier.

Accordingly, independent Claim 26 is allowable.

Claim Rejections 35 U.S.C. § 103

The Examiner also rejected Claims 5-14, 17, 19, and 20 as being unpatentable over Sato in view of U.S. Patent No. 4,925,723 ("Bujatti").

Claims 5-14, 17, 19, and 20 depend from Claim 1, and are allowable for at least the reasons Claim 1 is allowable. As discussed above, Sato does not disclose the subject matter of Claim 1. Bujatti does not cure the deficiencies of Sato. Bujatti does not disclose a power supply circuit comprising at least the following elements:

- (a) a primary side circuit including a circuit carrier oriented in a first plane, the primary side circuit electrically connected to the transformer;
- (b) a secondary side circuit including a circuit carrier oriented in a second plane substantially perpendicular to the first plane, the secondary side circuit electrically connected to the transformer and the primary side circuit.

Rather, Bujatti discloses a circuit substrate having metal filled vias which are suitable for microwave applications. In addition, under the reasoning set forth in *KSR v. Teleflex*, there is no reason for the combination of Sato and Bujatti.

#### **CONCLUSION**

In view of the foregoing, entry of this Amendment and allowance of Claims 1-26 are respectfully requested. The undersigned is available for telephone consultation during normal business hours.

Respectfully submitted,

/julie a. haut/

Julie A. Haut  
Reg. No. 51,789

Docket No. 041165-9060-00  
Michael Best & Friedrich LLP  
100 East Wisconsin Avenue  
Suite 3300  
Milwaukee, Wisconsin 53202-4108  
414.271.6560